



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0141; Project Identifier MCAI-2021-01052-T]

RIN 2120-AA64

Airworthiness Directives; MHI RJ Aviation ULC (Type Certificate Previously Held by Bombardier, Inc.) Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Supplemental notice of proposed rulemaking (SNPRM).

SUMMARY: The FAA is revising a notice of proposed rulemaking (NPRM) that would have applied to all MHI RJ Aviation ULC Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes. This action revises the NPRM by proposing to require an inspection for correct installation of the flexible lamp assembly; trimming and reidentifying a bracket; and for certain airplanes, an inspection for damage of the wire harness assembly; and applicable corrective actions. The FAA is proposing this airworthiness directive (AD) to address the unsafe condition on these products. Since these actions would impose an additional burden over those in the NPRM, the FAA is requesting comments on this SNPRM.

DATES: The FAA must receive comments on this SNPRM by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to [regulations.gov](https://www.regulations.gov). Follow the instructions for submitting comments.
- Fax: (202) 493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-0141; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the NPRM, this SNPRM, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

- For service information identified in this SNPRM, contact MHI RJ Aviation Group, Customer Response Center, 3655 Ave. des Grandes-Tourelles, Suite 110, Boisbriand, Québec J7H 0E2 Canada; North America toll-free telephone 833-990-7272 or direct-dial telephone 450-990-7272; fax 514-855-8501; email thd.crj@mhjrj.com; website mhjrj.com.

- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

FOR FURTHER INFORMATION CONTACT: Gabriel Kim, Aerospace Engineer, Avionics and Electrical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email 9-avs-nyacocos@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2022-0141; Project Identifier MCAI-2021-01052-T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this SNPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this SNPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this SNPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this SNPRM. Submissions containing CBI should be sent to Gabriel Kim, Aerospace Engineer, Avionics and Electrical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone

516-228-7300; email 9-avs-nyaco-cos@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued an NPRM to amend 14 CFR part 39 by adding an AD that would apply to all MHI RJ Aviation ULC Model CL-600-2B19 (Regional Jet Series 100 & 440). The NPRM published in the *Federal Register* on February 25, 2022 (87 FR 10752). The NPRM was prompted by AD CF-2021-32, dated September 17, 2021, issued by Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada (referred to after this as the MCAI). The MCAI states that an oxygen-fed ground fire event was potentially caused by electrical arcing from a faulty surround light wire on the third crew member's (observer) oxygen mask. An investigation determined that the oxygen supply hose connecting to the rear of the observer oxygen mask box assembly could be subject to chafing damage.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-0141.

In the NPRM, the FAA proposed to require an inspection for discrepancies of the observer's oxygen mask stowage box and storage compartment, oxygen hose connections and routing, and the associated electrical harness, and corrective actions if necessary; and modifying the oxygen mask flexible lamp harness, mounting plate, and compartment panel, including rerouting the electrical harness and applying protective sealant.

Actions Since the NPRM Was Issued

Since the FAA issued the NPRM, an operator reported a fouling condition between the power feed wires for the stowage box light strip and an existing aluminum bracket in the mask stowage compartment of the entrance monument. MHI RJ determined that additional actions were needed to further address the unsafe condition.

TCCA subsequently issued AD CF-2021-32R1, dated July 25, 2022, to require an additional inspection for correct installation of the flexible lamp assembly; trimming and reidentifying a bracket; and for certain airplanes, an inspection for damage of the wire harness assembly; and applicable corrective actions to address the fouling condition. The FAA is proposing this AD to address possible damage to the observer oxygen mask supply hoses and a potential for an oxygen-fed fire in the vicinity of the observer oxygen mask storage compartment.

Comments

The FAA received comments from MHI RJ Aviation and Air Wisconsin. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request to Incorporate Revised Service Information

MHI RJ Aviation and Air Wisconsin requested that the FAA incorporate new service information into this proposed AD. MHI RJ noted that when an operator performed the actions specified in the proposed AD, it resulted in an unforeseen new potential fouling condition with the existing bracket. MHI RJ stated that it had asked operators to not complete the actions until revised service information, including instructions to ensure clearance between the bracket and harness, was available. Air Wisconsin requested that the proposed AD be revised to include the new service information and additional work.

The FAA agrees and has revised this proposed AD to refer to Service Bulletin 601R-35-022, Revision B, dated April 21, 2022, as the appropriate source of service information to accomplish the required actions. This service information includes additional work to address the potential fouling condition.

Related Service Information under 1 CFR Part 51

The FAA reviewed MHI RJ Service Bulletin 601R-35-022, Revision B, dated April 21, 2022. This service information specifies procedures for doing a general visual inspection for discrepancies, including elbow fitting clocking (rotation), sealing tape installed in a certain location, wire damage (e.g., cuts, nicks, kinks, insulation damage) of the observer's oxygen mask stowage box and storage compartment, the observer's mask oxygen hose connections, the hose routing, and the associated electrical harness, and applicable corrective actions; and modifying the oxygen mask flexible lamp harness, mounting plate, and compartment panel, including rerouting the electrical harness and applying protective sealant. Corrective actions include re-positioning the elbow fitting, removing sealing tape, and repairing wiring. This service information also specifies procedures for an inspection for correct installation of the flexible lamp assembly; trimming and reidentifying a bracket; and for certain airplanes, an inspection for damage of the wire harness assembly; and applicable corrective actions. Corrective actions include correcting flexible lamp assembly installations and repair.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination and Requirements of this SNPRM

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI and service information referenced above. The FAA is issuing this SNPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Certain changes described above expand the scope of the NPRM. As a result, it is necessary to reopen the comment period to provide additional opportunity for the public to comment on this SNPRM.

Proposed AD Requirements in this SNPRM

This proposed AD would require accomplishing the actions specified in the service information described previously.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 407 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Up to 9 work-hours X \$85 per hour = Up to \$765	Up to \$115	Up to \$880	Up to \$358,160

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

MHI RJ Aviation ULC (Type Certificate Previously Held by Bombardier, Inc.):

Docket No. FAA-2022-0141; Project Identifier MCAI-2021-01052-T.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by
[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL

REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all MHI RJ Aviation ULC (Type Certificate Previously Held by Bombardier, Inc.) Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 35, Oxygen.

(e) Unsafe Condition

This AD was prompted by a report of an oxygen-fed ground fire event potentially caused by electrical arcing from a faulty surround light wire on the third crew member's (observer) oxygen mask. An investigation determined that the oxygen supply hose connecting to the rear of the observer oxygen mask box assembly could be subject to chafing damage. This AD was also prompted by the determination that additional inspections and a bracket trim are needed to address the unsafe condition. The FAA is issuing this AD to address possible damage to the observer oxygen mask supply hoses and a potential for an oxygen-fed fire in the vicinity of the observer oxygen mask storage compartment.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Within 4,000 flight hours or 24 months, whichever occurs first after the effective date of this AD, do the actions in paragraphs (g)(1) and (2) of this AD:

(1) For airplanes on which the actions specified in MHI RJ Service Bulletin 601R-35-022, dated June 1, 2021; or MHI RJ Service Bulletin 601R-35-022, Revision A,

dated October 12, 2021; have not been accomplished: Do the actions specified in paragraphs (g)(1)(i) and (ii) of this AD.

(i) Do a general visual inspection for discrepancies of the observer's oxygen mask stowage box and stowage compartment, the observer's mask oxygen hose connections, the hose routing, and the associated electrical harness; reroute the electrical harness and apply protective sealant in accordance with Part A. Section 2.B. of the Accomplishment Instructions of MHI RJ Service Bulletin 601R-35-022, Revision B, dated April 21, 2022. If any discrepancies are found, before further flight, do all applicable corrective actions, in accordance with paragraph 2.B. of the Accomplishment Instructions of MHI RJ Service Bulletin 601R-35-022, Revision B, dated April 21, 2022.

(ii) Modify the oxygen mask flexible lamp harness, mounting plate, and compartment panel, including rerouting the electrical harness; apply protective sealant; inspect the flexible lamp assembly for correct installation; and trim and reidentify the bracket; in accordance with Part A. Section 2.B. of the Accomplishment Instructions of MHI RJ Service Bulletin 601R-35-022, Revision B, dated April 21, 2022. Do all applicable flexible lamp assembly installation corrections before further flight in accordance with Part A. Section 2.B. of the Accomplishment Instructions of MHI RJ Service Bulletin 601R-35-022, Revision B, dated April 21, 2022.

(2) For airplanes on which the actions specified in MHI RJ Service Bulletin 601R-35-022, dated June 1, 2021; or MHI RJ Service Bulletin 601R-35-022, Revision A, dated October 12, 2021; have been accomplished: Inspect the flexible lamp assembly for correct installation; inspect the wire harness assembly for damage; and trim and reidentify the bracket in accordance with Part B. Section 2.E. of the Accomplishment Instructions of MHI RJ Service Bulletin 601R-35-022, Revision B, dated April 21, 2022. Do all applicable flexible lamp assembly installation corrections and damage repair

before further flight in accordance with Part B. Section 2.E. of the Accomplishment Instructions of MHI RJ Service Bulletin 601R-35-022, Revision B, dated April 21, 2022.

(h) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or MHI RJ Aviation ULC's TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(i) Additional Information

(1) Refer to TCCA AD CF-2021-32R1, dated July 25, 2022, for related information. This TCCA AD may be found in the AD docket at regulations.gov under Docket No. FAA-2022-0141.

(2) For more information about this AD, contact Gabriel Kim, Aerospace Engineer, Avionics and Electrical Systems Section, FAA, New York ACO Branch, 1600

Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email 9-avs-nyaco-cos@faa.gov.

(j) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) MHI RJ Aviation Service Bulletin 601R-35-022, Revision B, dated April 21, 2022.

(ii) [Reserved]

(3) For service information identified in this AD, contact MHI RJ Aviation Group, Customer Response Center, 3655 Ave. des Grandes-Tourelles, Suite 110, Boisbriand, Québec J7H 0E2 Canada; North America toll-free telephone 833-990-7272 or direct-dial telephone 450-990-7272; fax 514-855-8501; email thd.crj@mhirj.com; website mhirj.com.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on October 7, 2022.

Christina Underwood, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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